

ABSTRACT

A barrier to fluid passage is embedded within, instead of atop, porous material to retain the durability of the surface of the porous material. In one embodiment, a thin set mortar is applied to a concrete slab. A pleated metal foil is pressed into the wet mortar and a bond is established. The mortar is allowed to set and a top, or finish, section of concrete is then poured over the foil and finished conventionally. Provisions are made for sealing expansion joints in concrete slab floors and at the juncture of floor and wall. The foil may be provided in multiple layers to provide a mechanical bond via the concrete or mortar oozing through perforations or along pleats in each of the top and bottoms layers of the multi-layer foil, while providing at least one solid layer through which a fluid will not pass, at least in one direction.

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